

This listing of claims will replace all prior versions, and listings, of claims in the application:

MARKED-UP VERSION OF AMENDMENTS MADE TO CLAIMS

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A [voice] speech recognition device for toys comprising storage means for measuring the length in time of a combination of the length in time of two or more continuous words or expressions and the length in time of a pause of pauses between said words or expressions and then storing a measured value in advance, control means for measuring the length in time of a word or expressions spoken by a speaker, comparing a measured value with said measured value stored in storage
2. (Currently Amended) A [voice] speech recognition device for toys comprising storage means for measuring the length in time of a word or expression spoken by a speaker for recognition and then storing a measured value in advance, a control means for measuring the length in time of a word or expression spoken by a speaker, comparing a measured value with said measured value stored in said storage means and recognizing said word or expression of the speaker in the event that the result of said comparison falls within a predetermined tolerance and an output means for outputting in voice the result of said recognition so carried out.
3. (Currently Amended) A [voice] speech recognition device for toys comprising storage means for storing the length in time of a voice synthesized word or expression in advance, an output means for outputting said voice synthesized word or recognizing said spoken work or expression and control means for measuring the length in time of a word or expression spoken by a speaker, comparing a measured value with the length in time of said voice synthesized word or expression stored in said storage means, recognizing said word or expression of the speaker in the event that the result of said comparison falls within a predetermined tolerance and outputting means for outputting the result of said recognition.

4. (Currently Amended) A [voice] speech recognition device for toys in claim 3, comprising a control means for measuring the length in time of a word or expression spoken by a speaker which corresponds to said outputted voice synthesized word or expression, comparing a measured value with the length in time of said voice synthesized word or expression which is stored in said storage means and recognizing said spoken word or expression of the speaker in the event that the result of said comparison falls within a predetermined tolerance, and an outputting means for outputting said recognized result.

5. (Currently Amended) A [voice] speech recognition device for toys as set forth in claim 3 or claim 4, wherein said storage means stores the length in time of a combination of said voice synthesized words or expressions and the length in time of a pause between said words or expression in advance, wherein said control means measures the length in time of said pause between said words or expressions and the length in time of words or expressions spoken by the speaker, compares measured values with the length in time of the combination of the length in time of the pause stored in the storage means and the length in time of the word or expressions spoken by the speaker for recognition and recognized the words or expressions by the speaker provided that the result of the comparison falls within the predetermined tolerance.

REMARKS

Claims 1-5 are pending in this application. The applicant has amended claims 1-5, the specification and abstract. Each of the foregoing amendments were made merely for the purpose of clarifying the scope of the claimed invention. Applicant submits that the application is in condition for allowance. Reconsideration and allowance in view of the following is respectfully requested.

A. Specification

The Examiner has objected that the term "voice recognition" should be replaced with "speech recognition" in the specification, claims and abstract. The applicant has filed a substitute specification under 37 CFR 1.125. The substitute specification replaced, inter alia, all references to "voice recognition" with "speech recognition." The substitute specification includes no new subject matter. Accordingly, the objection is believed to be overcome and withdrawal of the objection is requested.

B. Rejection under 35 U.S.C. 103

Independent claims 1-3 and dependent claims 4-5 have been rejected 35 U.S.C. 103(a) as being obvious over Hitchcock (4,761,815) in view of Maekawa (6,471,420). This rejection is respectfully traversed.

The voice recognition device for toys of claim 1 includes a storage means for measuring the length in time of a combination of two or more continuous words or expressions and the length in time of a pause or pauses between said words or expressions and then storing a measured value in advance.

On the other hand Hitchcock discloses a microcomputer that divides each spoken word into a series of word states, determines the length of each state and classifies each state as fricative, vowel-like, or silent. The incoming speech pattern, provided in the form of an array of

classified word states and an array of associated word lengths, is then compared sequentially with a series of templates defining the limited vocabulary stored in the microcomputer's memory. Thus, the speech recognition system of Hitchcock can recognize a word having a predetermined template, but can recognize other words not having predetermined template.

In the applicant's invention of claim 1, the device stores the length in time of a combination of two or more continuous words or expressions spoken by a speaker and the length in time or pause or pauses between said words or expressions as samples without templates. In this point, the applicant's invention is very different from Hitchcock, in addition this aspect is not disclosed in Maekawa.

The voice recognition device for toys of claim 2 includes a storage means for measuring the length in time of a word or expression spoken by speaker for recognition and then storing a measured value in advance.

On the other hand, Hitchcock discloses a microcomputer that divides each spoken word into a series of word states, determines the length of each state and classifies each state as fricative, vowel-like, or silent. The incoming speech pattern, provided in the form of an array of classified word states and an array of associated word lengths, is then compared sequentially with a series of templates defining the limited vocabulary stored in the microcomputer's memory. Thus, the speech recognition system of Hitchcock can recognize a word having a predetermined template, but can recognize other words not having predetermined template.

In the applicant's invention of claim 2, the device stores the length in time of a word or expression spoken by speaker as a sample without templates. In this point, the applicant's invention is very different from Hitchcock, in addition this aspect is not disclosed in Maekawa.

The voice recognition device for toys of claim 3 includes a storage means for measuring the length in time of a voice synthesized word or expression in advance.

On the other hand, Hitchcock discloses a microcomputer that divides each spoken word into a series of word states, determines the length of each state and classifies each state as fricative, vowel-like, or silent. The incoming speech pattern, provided in the form of an array of classified word states and an array of associated word lengths, is then compared sequentially

with a series of templates defining the limited vocabulary stored in the microcomputer's memory. Thus, the speech recognition system of Hitchcock can recognize a word having a predetermined template, but can recognize other words not having predetermined template.

In the applicant's invention of claim 3, the device stores the length in time of a voice synthesized word or expression as samples without templates. In this point, the applicant's invention is very different from Hitchcock, in addition this aspect have not disclosed in Maekawa.

Dependent claims 4 and 5 depend on claim 3.

These claimed features of applicant's invention are not shown or even suggested by Hitchcock and Maekawa for reasons discussed above with respect to claim 3.

In addition, as the number of the words or speeches to be recognized increases, the process gets more complicated and the capacity of the memory for storing the increasing data has to be extended thereby resulting in high production costs.

According to the applicant's invention, it is possible to repeat, by using the voice synthesis IC, a process in which an answer is given in response to a question in which an answer is given in response to a questions from the computer, and this assumes a real conversation made between human beings, whereby the user can express his or her wishes in sequential fashion. Finally it is possible to make the microcomputer or voice synthesis IC recognize many things to thereby make it follow orders from user.

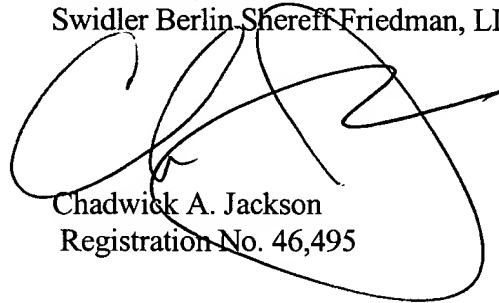
Support for this recitation is seen, for example, at page 2 line 7-11 and page 17 line 12-20 in the specification.

Thus, Hitchcock and Maekawa fail to disclose or suggest all of the claimed elements recited in claim 1-5.

C. Conclusion

For the foregoing reason, reconsideration and allowance of the pending claims is requested. If the Examiner has any questions about this Amendment and to facilitate prosecution, the examiner is encouraged to call the undersigned attorney. The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with this application to Deposit Account No. 19-5127 referencing 18920.0016.

Respectfully submitted,
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Dated: May 3, 2004

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